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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/830,103	04/23/2001	William S. Malson	AMERICAN P-3	2973

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EXAMINER

WACHTEL, ALEXIS A

ART UNIT PAPER NUMBER

1764

DATE MAILED: 02/23/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

**Application No.**

09/830,103

**Applicant(s)**

MALSON ET AL.

**Examiner**

Alexis Wachtel

**Art Unit**

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 22 November 2004.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

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Detailed Action

***Response to Amendment***

1. Applicant's amendment and accompanying Remarks filed 11-22-04 have been entered and carefully considered.

The amendment is sufficient to overcome the obviousness rejections of claim 2, but is insufficient to overcome rejection of claims 1,3-15. Claims 16 and 17 were added for consideration.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-5,7-13 and 15-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 4344824 to Soleau, Jr.

Claims 8-10,12 and 17 are given no patentable weight since said claims fail to lend structure to the claimed water dehumidification system.

With respects to claim 1, Soleau, Jr teaches a water dehumidification system comprising: a water vapor retaining container (1); a condenser (13) located within the water vapor retaining container for containing a liquid at a lower temperature than the water vapor, such that condensate forms on the outside of the condenser when water vapor is present and lower temperature liquid is in the condenser; and a collection

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trough under the condenser for gravitationally collecting the condensate which has sweated off the condenser thereby effecting dehumidification of the system (14).

Soleau, Jr as set forth above fails to teach the claimed dimensions of the water vapor retaining container. However, having employed the claimed height, width and length would have been considered an obvious matter of design choice and is consequently not found to be inventive.

With respect to claim 2, Soleau Jr as set forth above fails to teach that the water vapor retaining container is a darkly colored material selected from the group consisting of plastic and metal. However, since Soleau Jr does teach that the water vapor retaining container (11) is black to absorb incident solar energy (Col 2, lines 39-40), it would have been obvious to one of ordinary skill to have employed plastic or metal material for construction of the container (11) since these materials are durable and widely available.

Per claim 3: wherein the water vapor retaining is airtight (Col 2, line 17).

Per claim 4: wherein the condenser is made of pipe (Col 2, lines 42-43).

Per claim 5: wherein the condenser is made of a closed loop system of pipes (Fig.1).

Per claim 7: wherein the condenser is longitudinally oriented within an elongated water vapor retaining container (Fig.1).

With respect to claim 11, Soleau, Jr as set forth above fails to teach that the collection trough is of a V-shaped configuration. However, absent any showing of unexpected results associated with the use of a V-shaped trough, having employed a V-

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shaped trough instead of a U-shaped trough as disclosed by Soleau, Jr would have been an obvious matter of design choice.

Per claim 13: A passive solar water condensation system for processing non-potable water into potable water by condensing water vapor from contaminated water sources, comprising: an elongated passive solar water vapor retaining dehumidification container (1) to contain the non-potable water to be separated into potable water and residual sediment, said non-potable water to be put into a vapor phase by heating with solar energy; at least one condenser pipe (13) located within the water vapor retaining dehumidification container for receiving an incoming cold liquid at a lower temperature than the water vapor, such that condensate forms on the outside of the condenser when water vapor is present and lower temperature liquid is in the condenser; and a collection trough (14) under the condenser for gravitationally collecting the condensate which has sweated off the condenser, forming purified water.

Soleau, Jr as set forth above fails to teach the claimed dimensions of the water vapor retaining container. However, having employed the claimed height, width and length would have been considered an obvious matter of design choice and is consequently not found to be inventive.

Per claim 15: further comprising a storage tank for storing the purified water collected from the dehumidification process (Col 2, lines 56-62).

Per claim 16: further comprising a circulating pump (16) to pulse fresh liquid through condenser. The pump is capable of pulsing liquid.

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4. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 4344824 to Soleau, Jr in view of US 4217881 to Brent as set forth in the previous office action.

With respects to claim 6, Soleau, Jr as set forth above fails to teach that the condenser is made of a pipe material selected from the group consisting of copper and aluminum. Brent teaches that any stainless type of tubing such as copper tubing can be used to make condenser tubes (Col 2, lines 18-24). In view of this teaching it would have been obvious to one of ordinary skill to have employed copper tubing for making the condenser tube since it is established by Brent that such a material is functionally suitable for such an application.

5. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 4344824 to Soleau, Jr in view of US 5,873,996 to Rozelle et al as set forth in the previous office action.

With respects to claim 14, Soleau, Jr as set forth above fails to teach the use of a pre-treatment pond for pre-cleaning the non-potable water which is received by the dehumidification container. Rozelle is directed to water purification systems and teaches a system that draws water from source of water by a suction pump into an intake hose whose end portion is protected by a screen to prevent larger objects such as twigs and leaves from entering the intake hose (Col 3, lines 23-29). Since the water dehumidification system disclosed by Soleau, Jr requires a source of water to operate, it would have been obvious to have drawn water for the dehumidification system's operation from a body of water and to have provided water drawing means with a

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screen to prevent intake of large foreign fouling particles. One of ordinary skill would have been motivated by the desire to improve the working life of the dehumidification system.

### ***Arguments***

6. Applicant argues that the apparatus disclosed by Soleau Jr is not a passively solar heated condensation system, having an airtight water vapor container and a condenser through which a liquid circulates. Soleau Jr is a passively solar heated due to the inclusion of solar absorber plate (3) in the apparatus. As best seen from Fig.1, the apparatus disclosed by Soleau Jr is airtight.

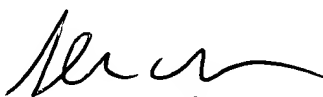
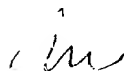
### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alex Wachtel whose telephone number is 571-272-1455. The examiner can normally be reached on 10:30am to 6:30pm. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Glenn Caldarola, can be reached at (571)-272-1444. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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